

all proving the importance of comparative anatomy in a medical point of view; and it is almost certain that before long that science will have a more prominent position in medical education than it at the present time possesses.

Those who have no other aspirations than to follow the routine practice of their profession immediately their few years of education are completed, will no doubt ignore the value of the extended curriculum we advocate: they imagine that it does not conduce to more accurate diagnosis or more correct treatment. This view is a short-sighted one, to say the least; for though the most able theorist may, by chance, be a bad practical physician or surgeon, yet the good he does by his higher work is insuperably greater in the long run than the immediate relief of individual cases. It is by the progress that is made by the profession in obtaining the mastery of disease that its position is maintained in society generally, and this progress is due much more to the theoretical chemist and physiologist than to the successful practitioner who simply follows the ordinary routine of his calling.

NOMENCLATURE OF DISEASES

Nomenclature of Diseases, prepared for the use of the Medical Officers of the United States Marine Hospital Service, by the Supervising Surgeon. (Washington: 1874).

THE preparation of this volume by Dr. Woodworth, supervising surgeon, has consisted in adopting, with some important omissions and unimportant transpositions, a literal transcript of the original "Nomenclature of Diseases" drawn up by a joint committee appointed by the Royal College of Physicians of London, of which Dr. Sibson was the editing secretary.

The original work received a modified sanction from the British Government, inasmuch as by the remarkable liberality of Mr. Lowe, then Chancellor of the Exchequer, money enough was provided to print off a large edition, and transmit a copy gratis to every member of the medical profession in Great Britain and Ireland. The further diffusion of the work in the United States by Dr. Woodworth is a thing for which the profession owes that gentleman hearty thanks. The work, indeed, seems to be more authoritative on that side of the Atlantic than on this; for the statistics of mortality for the ninth census of the United States were made up in accordance with its arrangement. This extension of a uniform nomenclature is itself, apart from the merits of the work, an evident great gain to science.

It is proposed to give the book a decennial revision; but while revision of some kind is periodically necessary, we do not anticipate that, after the work is thoroughly matured, it will be required above once in a generation,—three or four times in a century.

In the meantime, the book is in a somewhat imperfect state, many inaccuracies having been pointed out in a report upon it by the Edinburgh College of Physicians. The correction of such errors and the bringing of the work to the level of the present state of medical science will make it mature for the time being. But we hope that a new generation of medical men will find it necessary

to revise it; not to correct common errors, but to adapt it to the then advanced state of medical science. We are doubtful as to the propriety of attempting work of this kind by a mixed committee. The committee should be of the only kind Dr. Chalmers could tolerate—a committee of one! only the one should have power to call in aid. The work of Linnæus or of Jussieu could not have been done by a committee.

A good nomenclature of diseases will inevitably represent the science of the day. According as science advances, so will the nomenclature and arrangement be more and more natural. The profession of medicine is to be congratulated on the felt want of a nomenclature temporarily fixed, and on the evidence this work affords of its generous ambition to rise above a mere nosology, to something like a natural pathological arrangement.

The wide diffusion of a book like this in the medical profession, besides its own immediate utility, is sure to exercise a very beneficial and much wanted scientific influence. The looseness of much professional writing will be diminished and precision encouraged. If medical terms are well defined, writers will naturally become more careful in their use of them. At present, medical writing is infested not only with ill-defined terms but indefinite description. How often do we see such phrases as "once or twice," when we should have "once" or "twice." We might give many examples of this looseness for which we tolerate no excuse; but there is a looseness arising from the imperfection of medical science which we must meantime tolerate. Good and precise definition of terms only becomes possible when we know the properties or peculiarities of what is to be defined, and medicine is as yet in too empirical a state for satisfactory definitions. That subdivision of it which is most advanced—pathological anatomy—illustrates well the growth of precision of terminology as advancing knowledge permits and demands it, definition and discovery going hand in hand.

The same branch of medicine affords the best illustration of an admirable struggle after a good nomenclature, but even for this branch there has not as yet arisen a Tournefort to produce, if not temporary unanimity, at least temporary union in regard to nomenclature—a deficiency which, however much to be deplored as a cause of confusion and error, implies blame to no one. If in morbid anatomy we have no established nomenclature, how can we expect it in the nosology? This department of medical nomenclature we regard as being meantime best left in what may be called its popular state, such names as scarlatina, erysipelas, cholera, thrush, being better than any that could be based on our present imperfect knowledge of these diseases. But although this may be so now, there is good reason to expect the day when good descriptive names will be found for all these diseases—names which will suggest to the instructed an epitome of what is known regarding them.

Such suggestive names cannot be, however, without a well-matured classification. At present there are several very natural but isolated classes of diseases which form good samples of what is wanted—zymotic diseases, parasitic diseases, mechanical injuries—but for the most part we have a disjointed catalogue rather than a classification. The attainment of a complete classification will be a great step, an index of progress and an aid to it; but it

will be a structure, as we have already said, that advancing science will periodically overthrow. The ruin, however, will not be deplorable, because not only not irreparable, but certain to be succeeded by a new edifice which will in all probability be better and more useful than its predecessor.

J. M. D.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. No notice is taken of anonymous communications.]

The Education of Women

In your excellent article (vol. x. p. 395) on this subject, you forcibly point out that custom and prejudice have established for boys and girls a curriculum of studies which seems to have but little reason to justify it. You particularly mention that whereas music is, in England, but rarely taught to boys, it is "almost compulsory on girls, whether they have the talent for it or not."

This monopoly of music for girls, supposing our system of education to be founded on reason, should imply, amongst other considerations, that females possess peculiar aptitudes for this branch of art, and that instructing them in it is more likely to produce favourable results in their case than in that of males. I do not say that this is the only probable justification for our practice, but it should certainly be one strong ground for it.

But how does the matter really stand? It is a most remarkable fact that in the highest walk of musical achievement, composition, women are positively nowhere. I believe I am safe in saying that not a single opera, or oratorio, for instance, the work of a woman, has ever maintained even brief popularity; nor has the sex furnished us with one representative worthy of being placed by the side of Bach, Handel, Mozart, Beethoven, Rossini, Mendelssohn, and a host of other great male composers who could be named.

In almost every other department of art and knowledge eminent women have been found—in literature, both prose and poetic, in mathematics, science, painting, sculpture, medicine; but not a solitary great female musical composer can be named.

I do not point out this fact for the purpose of disparaging the female intellect, of which I have the highest admiration, but for the purpose of reinforcing with it the arguments put forward by yourself and other friends of female education in favour of a revision of the subjects appropriated by unreasoning custom to the two sexes.

Considering, however, that the doctrine of chances might have been expected to give us at least one female musician of the highest order out of the myriads who devote a large portion of their existence to the cultivation of the art, the striking fact that it is not so is one well calculated to excite speculation. Is the power of producing new and acceptable music distinguishable in any way from other art power—that for instance of producing a fine painting, statue, or poem? There does seem to me to be this peculiarity belonging to music. The subjects of a painting, statue, or poem, may, and generally are, suggested by some event, person, tradition, or thing already existing. The suggestions of colour, form, light, and shade, furnished by nature, are endless, and capable of infinite diversification—they often, no doubt, act on the mind of the artist unconsciously—but, whether he is conscious of it or not, their influence is always at work—and though he produces something which we feel to be truly original, yet he is probably indebted for the first germ of the idea and for the greater part of the machinery by means of which it has been realised, to sources and materials previously existing, some of which have indeed generally left their traces on the work.

Can anything like this be said of music? What can have suggested some of the simple melodies to which we are never tired of listening, and which are so complete, so consistent, so satisfying, that we accept them almost like works of nature which we do not dream of altering? That there are associations of ideas between musical sounds and visible things, and even moral sentiments, may be true, but such relations must be vagueness and mistiness itself, compared with the relations on which other arts are dependent. So slight, so remote, so intangible are the sources of original music, that it has always seemed to me that the faculty of musical composition of the highest order approaches more nearly to inspiration than any other faculty with which mankind is endowed.

How can the apparent absence of this faculty in women be explained?

ALEX. STRANGE

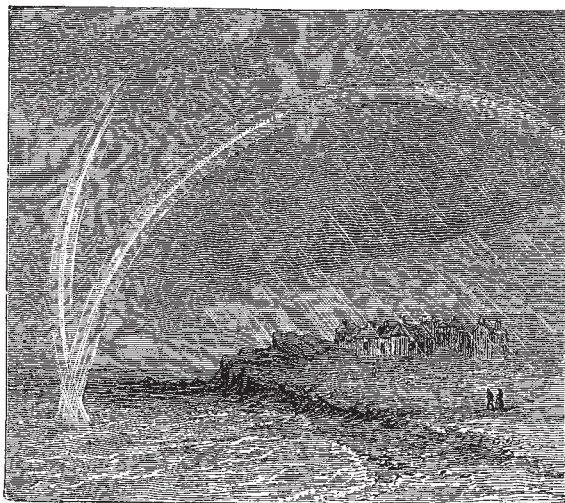
London, Sept. 22

Double Rainbow

ON the 11th, at 5.40 P.M., this comparatively rare phenomenon was well seen here by the crowd assembled at the Ladies' Golf Match. The accompanying sketch, by T. Hodge, Esq., gives a thoroughly artistic view of the scene.

Unfortunately the estuary of the Eden, whose quiet water furnished the reflected sunlight, is considerably north of the observer's station. Hence the necessary incompleteness of the second bow. I cannot learn whether any spectator was fortunate enough to observe the phenomenon from a point a mile or two north, whence it would probably have been seen entire.

As seen from stations to the eastward of St. Andrews, the second bow, there due to light reflected from the rougher water of the bay, was considerably broader than the first; so much so



at the upper end of the visible portion as to give, even to intelligent spectators, the impression that it was convex instead of concave to the point opposite the reflected sun.

It was not possible to ascertain whether the light of the portions of the two bows visible below the horizon was that coming from the rain-drops directly, or that subsequently reflected from the sea; though (*pace* Dr. Tyndall) probably the latter was at least a considerable agent.

P. G. TAIT

St. Andrews, N.B., Sept. 15

P.S. In my note on "Bright Meteors" (*NATURE*, vol. x. 305) I find I have inadvertently written Saturday in place of Sunday. Perhaps, with this correction, Mr. Waller may be able to identify both meteors in a satisfactory manner.

THIS is the phenomenon observed by Dr. Halley, Aug. 6, 1698, at Chester. The second bow was formed by the sun's light reflected from the river Dee. See "*Brewster's Optics*," p. 380.

Of the parts of the two bows below the horizon, the outer is a continuation of the primary bow, and is formed principally by direct sunlight striking the drops between the observer and the sea and reflected in the ordinary manner.

It may derive a slight increase of brightness from light first reflected at the sea, then by rain-drops, and lastly by the sea again. The inner part is produced by one reflection from the sea and one reflection from rain-drops. The brightness will be the same whichever reflection comes first, provided the smooth sea, the rain-drops, and the sunlight are present.

J. CLERK-MAXWELL

Curious Rainbow

I DO not see that the rainbow described by Mr. Swettenham (*NATURE*, vol. x. p. 398) was different from an ordinary rainbow of moderate brightness, except in there being a slight interval between the two series of colours, which generally blend into